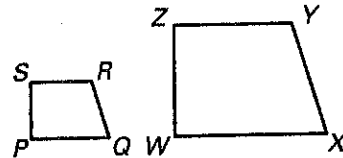


# Practice A

For use with pages 364–371

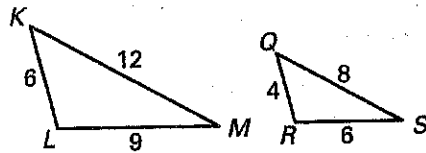
In the diagram,  $PQRS$  is similar to  $WXYZ$ .

1. List all pairs of congruent angles.
2. Write the ratios of the corresponding sides in a statement of proportionality.

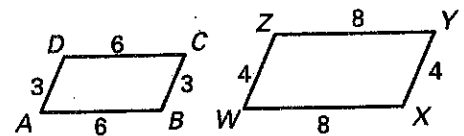


In Exercises 3 and 4, the two figures are similar.

3. Find the scale factor of  $\triangle KLM$  to  $\triangle QRS$ .

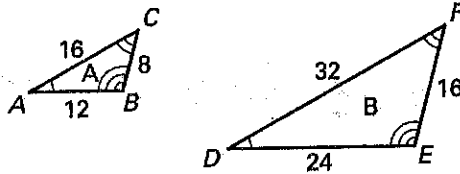


4. Find the scale factor of  $\square ABCD$  to  $\square WXYZ$ .

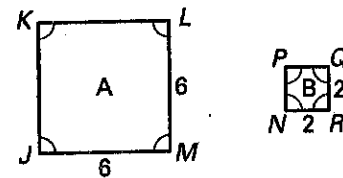


Determine whether the polygons are similar. If they are similar, write a similarity statement and find the scale factor of figure B to figure A.

5.



6.

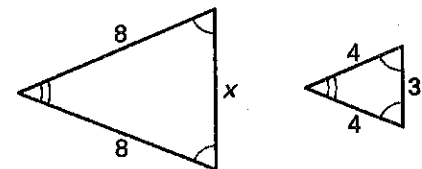


The two polygons are similar. Find the value of  $x$ .

7.

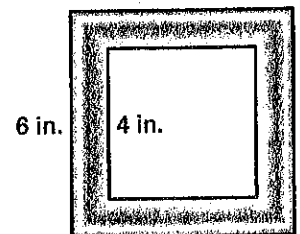


8.



A square photo is enclosed in a square frame as shown at the right.

9. Is the square formed by the photo similar to the square formed by the outside edges of the frame? Explain.
10. Find the scale factor of the photo to the frame.
11. Find the ratio of the perimeter of the photo to the perimeter of the frame.
12. Are all squares similar?



### Simplify the ratio.

1. 6 in.:28 in.

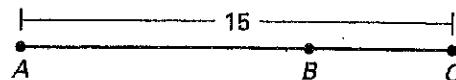
2.  $\frac{18 \text{ cm}}{6 \text{ cm}}$

3.  $\frac{27 \text{ in.}}{3 \text{ ft}}$

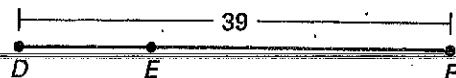
### Exercises for Example 2

#### Find the segment lengths.

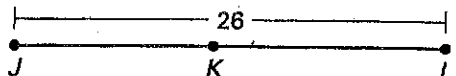
4. In the diagram,  $AB:BC$  is 2:1 and  $AC = 15$ .  
Find  $AB$  and  $BC$ .



5. In the diagram,  $DE:EF$  is 4:9 and  $DF = 39$ .  
Find  $DE$  and  $EF$ .



6. In the diagram,  $JK:KL$  is 6:7 and  $JL = 26$ .  
Find  $JK$  and  $KL$ .



### EXAMPLE 3 Solve a Proportion

#### Solve the proportion.

7.  $\frac{x}{2} = \frac{7}{14}$

8.  $\frac{5}{7} = \frac{y+1}{21}$

9.  $\frac{27}{x-5} = \frac{3}{2}$

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13

## DAILY HOMEWORK QUIZ

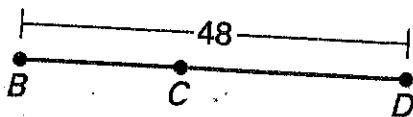
For use after Lesson 7.1, pages 357–363

### Simplify the ratio.

1.  $\frac{20 \text{ m}}{32 \text{ m}}$

2.  $\frac{40 \text{ min}}{2 \text{ h}}$

3. In the diagram,  $BC:CD$  is 5:7 and  $BD = 48$ .  
Find  $BC$  and  $CD$ .



### Solve the proportion.

4.  $\frac{4}{5} = \frac{x}{35}$

5.  $\frac{12}{7} = \frac{96}{y+2}$

18

Geometry  
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